SIMDIS

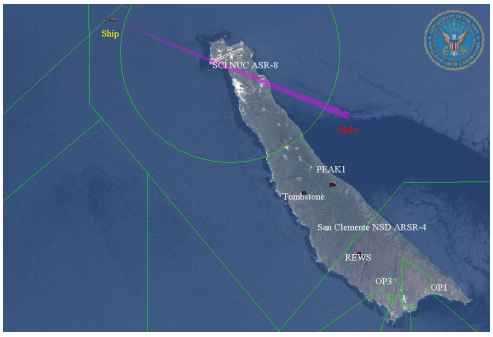
Analysis, Display, and Simulation Tool

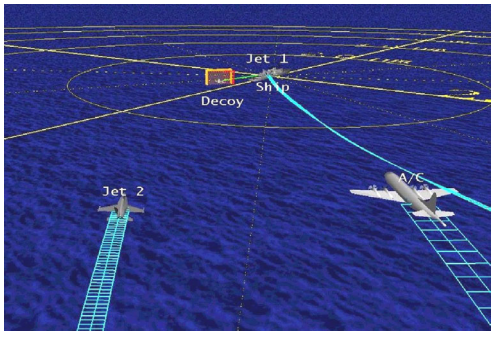
Under direction of the Office of Naval Research, the Naval Research Laboratory's Code 5707 has prototyped, produced, and delivered the SIMDIS 3D Visualization and Analysis Tool to the DoD community. Offering an affordable analysis and visualization capability, SIMDIS provides support for high-fidelity analysis and display of test and training mission data to a growing user base of more than 700 users. This highly specialized visualization tool provides unique capability for two and three-dimensional interactive data display and analysis. The SIMDIS toolset is designed for Windows, Linux, SGI, and Sun workstations with hardware-accelerated 3-D graphics and requires no additional COTS products or license fees. SIMDIS provides identical execution and "look and feel" for all supported platforms.

By leveraging recent technological advances in accelerated computer graphics hardware, SIMDIS provides powerful capability for interactively visualizing and analyzing simulation and field test data from any and every viewpoint. SIMDIS provides a 3D display of the normally "seen" data such as platform position and orientation, as well as the "unseen" data such as the interactions of sensor systems with targets, countermeasures, and the environment. The SIMDIS toolset includes custom tools for interactively analyzing and displaying data for equipment modes, spatial grids, ranges, angles, and antenna patterns. Capability for viewing time-synchronized data from either a standalone workstation or multiple networked workstations is also provided.

To meet the demanding needs of today's range operators, simulation users, analysts, and decision makers SIMDIS provides multiple modes of operation including live display, interactive playback, and scripted multimedia modes. SIMDIS also provides capability for manipulation of post-processed data and integration with charts, graphs, and pictures for use in the development and delivery of high impact three-dimensional visual presentations.

At the Naval Research Laboratory and other DoD sites, SIMDIS has been used for numerous simulation and test applications. Used to assist COMOPTEVFOR in the reconstruction of data from the Nulka Decoy milestone III operational test (OT), the high-fidelity analysis and visualization capability provided by the SIMDIS toolset proved to be an invaluable asset for analyzing the vast test data in a common coordinate frame of reference. It allowed analysts to view the data faster and with greater fidelity than had previously been possible. SIMDIS is currently a key operational display system at sites including the Pacific Missile Range Facility (PMRF) and the Southern California Offshore Range (SCORE). At PMRF and SCORE, SIMDIS provides live and post-processed 3D display capability for training and T&E tests. At PMRF, SIMDIS is employed for such diverse applications as fleet missile exercises, real-time range awareness, range safety for high-value targets, and PCO submarine qualifications involving live torpedo firings. At SCORE, SIMDIS is used for live operation evaluation during unit and fleet level training exercises, range safety for missile exercises, and post mission debriefs.





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